

AMENDMENTS TO THE CLAIMS

Please amend the claims of the present application as set forth below. More specifically, a detailed listing of all claims has been provided. This listing of claims will replace all prior versions and listings of claims in the application. Changes to the claims are shown by strikethrough or double brackets (for deleted matter) and underlining (for added matter).

By way of overview, upon entry of this Response, claims 1-3, 9-17, 23-31 and 33-49 will be pending. The status of the pending claims upon entry of this Response is indicated below:

- a) Claims 2-3, 9-12, 14-17, 23-26, and 28-31 are original;
- b) Claims 1, 13, 27, and 36-48 were previously presented;
- c) Claims 33, 34, 35, and 49 are currently amended; and
- d) Claims 4-8, 18-22, and 32 are canceled without prejudice or disclaimer.

Listing of Claims

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1 1. (Previously presented) A computer system user interface for statistical analysis
2 comprising:

3 a data entry display screen configured to receive user input providing tabular data;
4 a configuration and control display screen configured to receive user input
5 selecting a particular statistical analysis to be performed on the tabular data;

6 statistical computation means responsive to user input received in the
7 configuration and control display screen to perform the particular statistical analysis
8 using the tabular data entered by user input in the data entry display screen to generate
9 statistical results wherein the statistical computation means is operable to retrieve and
10 reformat the tabular data without user interaction; and

11 a results page display screen responsive to the statistical computation means and
12 to user input received in the configuration and control display screen to format and
13 display results of the statistical analysis,

14 wherein the statistical analysis is configured to find at least one statistically
15 significant factor affecting a given response within the user input data based on the
16 particular statistical analysis selected through the configuration and control display
17 screen.

18
19 2. (Original) The user interface of claim 1 wherein the statistical computation
20 means includes:

21 means for computing the particular statistical analysis as one or more of: mean of
22 the response, median of a function response, standard deviation of a function response,
23 1st and 3rd quartile of a function response, stability factor of a function response,
24 percentiles of a function response, percentile span of a function response, mean of the
25 response using weighted data, median of the response using weighted data, standard

1 deviation of the response using weighted data, 1st and 3rd quartile of the response using
2 weighted data, stability factor of the response using weighted data, percentiles of the
3 response using weighted data, percentile span of the response using weighted data, mean
4 of the response for the top N elements, median of a function response for the top N
5 elements, standard deviation of a function response for the top N elements, 1st and 3rd
6 quartile of a function response for the top N elements, stability factor of a function
7 response for the top N elements, percentiles of a function response for the top N
8 elements, percentile span of a function response for the top N elements, mean of the
9 response using weighted data for the top N elements, median of the response using
10 weighted data for the top N elements, standard deviation of the response using weighted
11 data for the top N elements, 1st and 3rd quartile of the response using weighted data for
12 the top N elements, stability factor of the response using weighted data for the top N
13 elements, percentiles of the response using weighted data for the top N elements, and
14 percentile span of the response using weighted data for the top N elements.

15

16 3. (Original) The user interface of claim 1 further comprising:
17 a data store associated with the data entry display screen for persistent storage of
18 the tabular data,
19 wherein the statistical analysis computation means is operable to retrieve the
20 tabular data from the data store.

21

22 4-8. (Canceled)

23

24 9. (Original) A method comprising:
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1 presenting a spreadsheet to a user on a display wherein the spreadsheet comprises
2 a plurality of pre-defined pages;

3 receiving tabular data in a canonical form into a data page of the plurality of pre-
4 defined pages;

5 receiving configuration input into a user interaction page of the plurality of pre-
6 defined pages wherein the configuration input indicates a type of statistical analysis to be
7 performed and indication of elements involved in the statistical analysis;

8 automatically reformatting the tabular data in accord with the type of statistical
9 analysis without further user interaction;

10 automatically performing the indicated statistical analysis for all indicated
11 elements without further interaction wherein the statistical analysis identifies a significant
12 factor in the tabular data; and

13 generating results of the statistical analysis in a result page of the plurality of pre-
14 defined pages wherein the results identify the significant factor.

15
16 10. (Original) The method of claim 9 wherein the step of receiving configuration
17 information comprises:

18 receiving user input identifying portions of the tabular data representing elements
19 for the statistical analysis and user input identifying portions of the tabular data
20 representing a response for the statistical analysis.

21
22 11. (Original) The method of claim 10 wherein the step of receiving configuration
23 input further comprises:

24 receiving user input as the configuration input identifying the type of statistical
25 analysis as one or more of: mean of the response, median of the response, standard

1 deviation of the response, 1st and 3rd quartile of the response, stability factor of the
2 response, percentiles of the response, and percentile span of the response.

3
4 12. (Original) The method of claim 9 wherein the step of generating results
5 comprises:

6 generating results as tabular output in the results page.

7
8 13. (Previously presented) The method of claim 9 wherein the step of generating
9 results comprises:

10 generating results as graphical output in the results page.

11
12 14. (Original) The method of claim 9 wherein the step of receiving configuration
13 input comprises:

14 receiving user input identifying relevant elements within the tabular data and a
15 corresponding response within the tabular data.

16
17 15. (Original) The method of claim 14 wherein the step of performing the
18 statistical analysis comprises:

19 determining a difference between the mean of a studied element of said relevant
20 elements and all other elements of said relevant elements to determine significance of the
21 studied element.

22
23 16. (Original) The method of claim 14 wherein the step of performing the
24 statistical analysis comprises:

1 determining a difference between a standard deviation of a studied element of said
2 relevant elements and all other elements of said relevant elements to determine
3 significance of the studied element.

4
5 17. (Original) The method of claim 14 wherein the step of performing the
6 statistical analysis comprises:

7 determining a difference between percentiles of a studied element of said relevant
8 elements and all other elements of said relevant elements to determine significance of the
9 studied element.

10
11 18-22. (Canceled)

12
13 23. (Original) A computer readable storage medium tangibly embodying program
14 instructions for a method, the method comprising:

15 presenting a spreadsheet to a user on a display wherein the spreadsheet comprises
16 a plurality of pre-defined pages;

17 receiving tabular data in a canonical form into a data page of the plurality of pre-
18 defined pages;

19 receiving configuration input into a user interaction page of the plurality of pre-
20 defined pages wherein the configuration input indicates a type of statistical analysis to be
21 performed and indication of elements involved in the statistical analysis;

22 automatically reformatting the tabular data in accord with the type of statistical
23 analysis without further user interaction;

1 automatically performing the indicated statistical analysis for all indicated
2 elements without further interaction wherein the statistical analysis identifies a significant
3 factor in the tabular data; and

4 generating results of the statistical analysis in a result page of the plurality of pre-
5 defined pages wherein the results identify the significant factor.

6
7 24. (Original) The medium of claim 23 wherein the method step of receiving
8 configuration information comprises:

9 receiving user input identifying portions of the tabular data representing elements
10 for the statistical analysis and user input identifying portions of the tabular data
11 representing a response for the statistical analysis.

12
13 25. (Original) The medium of claim 24 wherein the method step of receiving
14 configuration input further comprises:

15 receiving user input as the configuration input identifying the type of statistical
16 analysis as one or more of: mean of the response, median of the response, standard
17 deviation of the response, 1st and 3rd quartile of the response, stability factor of the
18 response, percentiles of the response, and percentile span of the response.

19
20 26. (Original) The medium of claim 23 wherein the method step of generating
21 results comprises:

22 generating results as tabular output in the results page.

23
24 27. (Previously presented) The medium of claim 23 wherein the method step of
25 generating results comprises:

1 generating results as graphical output in the results page.

2
3 28. (Original) The medium of claim 23 wherein the method step of receiving
4 configuration input comprises:

5 receiving user input identifying relevant elements within the tabular data and a
6 corresponding response within the tabular data.

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8
9 29. (Original) The medium of claim 28 wherein the method step of performing the
10 statistical analysis comprises:

11 determining a difference between the mean of a studied element of said relevant
12 elements and all other elements of said relevant elements to determine significance of the
13 studied element.

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15 30. (Original) The medium of claim 28 wherein the method step of performing the
16 statistical analysis comprises:

17 determining a difference between a standard deviation of a studied element of said
18 relevant elements and all other elements of said relevant elements to determine
19 significance of the studied element.

20
21 31. (Original) The medium of claim 28 wherein the method step of performing the
22 statistical analysis comprises:

23 determining a difference between percentiles of a studied element of said relevant
24 elements and all other elements of said relevant elements to determine significance of the
25 studied element.

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2 32. (Canceled)

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4 33. (Currently amended) A method comprising:
5 receiving user input identifying desired analysis;
6 retrieving user data from a data store;
7 reformatting the user data in accordance with the desired analysis;
8 computing factors for the desired analysis;
9 formatting output from results of the computation for presentation to the user; and
10 presenting the output to the user in response to input from the user requesting
11 output presentation,

12 wherein the steps of retrieving, reformatting, computing and formatting are
13 automated, responsive to the step of receiving and otherwise substantially devoid of
14 interaction with the user for receiving input,

15 ~~The method of claim 4~~ wherein the computing of factors for the desired analysis
16 comprises finding statistically significant factors affecting a given response within the
17 user data based on the identified desired analysis.

18
19 34. (Currently amended) A computer readable storage medium tangibly
20 embodying program instructions for a method, the method comprising:
21 receiving user input identifying desired analysis;
22 retrieving user data from a data store;
23 reformatting the user data in accordance with the desired analysis;
24 computing factors for the desired analysis;
25 formatting output from results of the computation for presentation to the user; and

1 presenting the output to the user in response to input from the user requesting
2 output presentation,

3 wherein the method steps of retrieving, reformatting, computing and formatting
4 are automated, responsive to the method step of receiving and otherwise substantially
5 devoid of interaction with the user for receiving input,

6 ~~The medium of claim 18~~ wherein the computing of factors for the desired analysis
7 comprises finding statistically significant factors affecting a given response within the
8 user data based on the identified desired analysis.

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10 35. (Currently amended) A method implemented by a computer system
11 comprising:

12 receiving data through a data entry display screen mechanism;
13 receiving configuration input through a configuration and control display screen
14 mechanism, wherein the configuration input indicates:

15 a type of statistical analysis to be performed; and
16 an indication of factor-type X elements and at least one response-type Y
17 element associated with the received data;
18 performing the indicated statistical analysis for all indicated elements, wherein the
19 statistical analysis identifies a significant factor among the indicated factor-type X
20 elements with respect to said at least one identified response-type Y element; and
21 generating results of the statistical analysis, wherein the results identify the
22 significant factor.

23

24 36. (Previously presented) The method of claim 35 wherein the receiving an
25 indication of factor-type X elements and said at least one response-type Y elements

1 comprises indicating respective types of the elements within a tabular display of the
2 elements.

3
4 37. (Previously presented) The method of claim 35 wherein the receiving of the
5 configuration input further comprises:

6 receiving an instruction that governs processing to identify significant factors
7 from among identified response-type X elements with respect to an identified response-
8 type Y element, the instruction comprising one of:

9 an instruction to identify main effects of various factors on the identified
10 response-type Y element;
11 an instruction to identify a specified order of all effects; and
12 an instruction to identify all orders of effects.

13
14 38. (Previously presented) The method of claim 35 wherein the receiving of the
15 configuration input further comprises:

16 receiving an instruction to standardize an identified factor-type Y element by
17 removing an effect of an identified factor-type X element on the identified response-type
18 Y element.

19
20 39. (Previously presented) The method of claim 35 wherein the receiving of the
21 configuration input further comprises:

22 receiving an instruction to categorize an identified factor-type X element into a
23 discrete range of values of the factor-type X element.

1 40. (Previously presented) The method of claim 35 wherein the receiving of the
2 configuration input further comprises:

3 identifying an X level associated with a desired level of interaction analysis for an
4 identified factor-type X element.

5
6 41. (Previously presented) The method of claim 35 wherein the receiving of the
7 configuration input further comprises:

8 identifying a type of statistical measure response represented by an identified
9 response-type Y element, the type of statistical measure response defining the type of
10 statistical analysis to be performed.

11
12 42. (Previously presented) The method of claim 35 wherein the receiving of the
13 configuration input further comprises:

14 identifying a filter that limits values analyzed for an identified factor-type X
15 element.

16
17 43. (Previously presented) The method of claim 35 wherein the receiving of the
18 configuration input further comprises:

19 identifying N top levels to be included in the statistical analysis for an identified
20 factor-type X element.

21
22 44. (Previously presented) The method of claim 35 wherein the receiving of the
23 configuration input further comprises:

24 identifying, for an identified response-type Y element, whether a weighted
25 statistical measure should be used, as opposed to a standard statistical measure.

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2 45. (Previously presented) The method of claim 35 wherein the receiving of the
3 configuration input further comprises:

4 allowing a user to customize specifications that aid in determining which
5 response-type X elements are significant as compared to other response-type X elements.

6
7 46. (Previously presented) The method of claim 35 further comprising, via the
8 configuration and control display mechanism, providing an instruction to derive a transfer
9 function based on the results of the statistical analysis.

10
11 47. (Previously presented) The method of claim 35 further comprising presenting
12 the generated results in a tabular-type presentation, the tabular-type presentation showing
13 main effects and higher-order effects.

14
15 48. (Previously presented) The method of claim 35 further comprising presenting
16 the generated results in a graphical-type presentation, the graphical-type presentation
17 showing main effects and higher-order effects.

18
19 49. (Currently amended) A computer readable storage medium tangibly
20 embodying program instructions which implement a method when performed by a
21 computer system, the method comprising:

22 receiving data through a data entry display screen mechanism;
23 receiving configuration input through a configuration and control display screen
24 mechanism, wherein the configuration input indicates:

25 a type of statistical analysis to be performed; and

1 an indication of factor-type X elements and at least one response-type Y
2 element associated with the received data;

3 performing the indicated statistical analysis for all indicated elements, wherein the
4 statistical analysis identifies a significant factor among the indicated factor-type X
5 elements with respect to said at least one identified response-type Y element; and

6 generating results of the statistical analysis, wherein the results identify the
7 significant factor.

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